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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/038,398

01/02/2002

K. Ranji Vaidyanathan

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04/21/2006

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EXAMINER

BARRETT, THOMAS C

ART UNIT

PAPER NUMBER

3738

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/038,398

Applicant(s)

VAIDYANATHAN ET AL.

Examiner

Thomas C. Barrett

Art Unit

3738

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-13,15-23 and 25-28 is/are pending in the application.
- 4a) Of the above claim(s) 9,10 and 16-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8,11-13,15,25-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-2, 4-13, 15-23 and 25-28 have been considered but are moot in view of the new ground(s) of rejection.

The priority date of the present remains January 2, 2002. Even if polyethyletherketone is used interchangeably with polyetheretherketone, as noted in the prior action, the **combination** of PEEK with PBT is not disclosed in provisional application 60/259,348.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The Applicant fails to address why the **combinations** of the references fail to teach or suggest the presently claimed invention.

In addition, it is again requested that the Applicant supply copies of any handouts or other pertinent information in relation to "Symposium Y" if available.

### ***Claim Objections***

Claims 11-13, 15 and 25-28 are objected to because of the following informalities: The Applicant is apparently attempting to claim elements within a Markush grouping but it is unclear, e.g. claim 11, "wherein the composition one or more...". It is

suggested that the Applicant use a format such as "wherein the composition is selected from the group consisting of..." Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walish et al. (Symposium Y) in view of DeBruijn et al. (6,228,117 B1) in further view of Vyakarnam et al. (6,534,084). Walish et al. discloses a biocompatible osteoinductive implant comprising a porous composition that provides load-bearing support for bone, further comprising a polymer-ceramic composition, that degrades at a different rate than the first composition, however Walish et al. fails to disclose the polymer comprising polybutyleneterephthalate or polyethyletherketone. DeBruijn et al. teaches an engineered bone comprising polybutyleneterephthalate (PBT), which can also include growth factors. It would have been obvious to one of ordinary skill in the art to combine the teaching of a bone implant comprising PBT, as taught by DeBruijn et al., to a biocompatible osteoinductive implant as per Walish et al., the motivation to combine being a bioactive, PBT can be used to make an osteoconductive copolymer, as found in DeBruijn et al. (col. 4, lines 41-54). Walish et al./ DeBruijn et al. discloses a biocompatible osteoinductive implant comprising a porous composition however Walish

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et al./ DeBruijn et al. fails to disclose a specific porosity and pore size. Vyakarnam et al. teaches an implant having a porosity of 50-60% and pores sized between about 150 to about 400 microns, which would be similar to the naturally occurring structure (col. 5, line 66- col. 6, line 41). It would have been obvious to one of ordinary skill in the art to combine the teaching of an implant having a porosity of 50-60% and pores sized between about 150 to about 400 microns, as taught by Vyakarnam et al., to a biocompatible osteoinductive implant as per Walish et al./ DeBruijn et al., in order to better approximate the naturally occurring structure.

Claims 6, 8, 11-13, 15 and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walish et al. (Symposium Y) in view of DeBruijn et al. (6,228,117 B1) in further view of Vyakarnam et al. (6,534,084) as above, in further view of Kumar (2002/0127391 A1). Walish et al./ DeBruijn et al./ Vyakarnam et al. discloses a biocompatible osteoinductive implant comprising a porous composition however Walish et al./ DeBruijn et al./ Vyakarnam et al. fails to disclose the polymer-ceramic composition comprising polylactic acid. Kumar teaches an implant having a coating comprising a ceramic-polylactic acid composition (0024). It would have been obvious to one of ordinary skill in the art to combine the teaching of an implant having a coating comprising a ceramic-polylactic acid composition, as taught by Kumar, to a biocompatible osteoinductive implant as per Walish et al./ DeBruijn et al./ Vyakarnam et al., for resorption after implantation.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas C. Barrett whose telephone number is (571) 272-4746. The examiner can normally be reached Tuesday-Friday between 9:00 A.M. and 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on (571) 272-4754. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Thomas Barrett", with a long horizontal flourish extending to the right.

Thomas Barrett  
Examiner  
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